CDM Smith

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February 22, 2017

Ms. Jodi Powell
Project Officer
U. S. Environmental Protection Agency
1595 Wynkoop Street
Denver, CO 80202-1129

Subject: Work plan for remedial investigation and feasibility study oversight at the Anaconda Aluminum Company, Columbia Falls Reduction Plant Superfund Site

Project: RAC Contract Number EP-W-05-049
Work Assignment Number 359-RSBD-A882

Dear Ms. Powell:

CDM Federal Programs Corporation (CDM Smith) is pleased to submit this work plan for work assignment (WA) number 359-RSBD-A882 to provide technical assistance to the U.S. Environmental Protection Agency (EPA) for the Anaconda Aluminum Company, Columbia Falls Reduction Plant Superfund Site (the Site) Remedial Investigation and Feasibility Study Oversight WA. The Site is located in Columbia Falls, Montana and is commonly referred to as the Columbia Falls Aluminum Company (CFAC) Plant. This work plan summarizes the details for performing the tasks as described in the December 20, 2016 work assignment form (WAF), revision 0. It includes assumptions, costs, and personnel for the support discussed in the scope of work provided with the WAF. In accordance with the conflict of interest (COI) screen performed at this site, there are no current or perceived COI at the time of this submittal.

This letter work plan is organized in the following sections:

- Key Assumptions
- Task 1 – Project Planning & Support
- Task 2 – Community Involvement
- Task 3 – Field Investigation/Data Acquisition
- Task 4 – Sample Analysis

2018-003543-0619

- ☐ Task 5 – Analytical Support and Data Validation
- ☐ Task 6 – Data Evaluation
- ☐ Tasks 7– 14 No tasks to be performed as stated in WAF
- ☐ Task 15 – Work Assignment Closeout
- ☐ Project Deliverables
- ☐ Project Personnel
- ☐ Program Management

Key Assumptions

The total cost, including fee, for CFAC remedial investigation and feasibility study oversight is shown in the attached cost spreadsheets. The WA was initiated by CDM Smith according to the statement of work (SOW) provided with the December 20, 2016 WAF for WA 359-RSBD-A882. The SOW provided by the EPA requested remedial investigation and feasibility study oversight for the CFAC. In the event the period of performance (POP) for this work assignment is extended, additional scope is included within this work plan for Subtask 1.4 (project management support) to allow for project planning and support task elements to be completed. It is CDM Smith's understanding that all management and technical tasks that have adequate funding will be completed at the direction of the EPA Work Assignment Manager (WAM) Mr. Mike Cirian.

Task 1 – Project Planning & Support

1.1 Development and Negotiation of Work Plan

This activity includes preparation of this work plan, which describes how CDM Smith will perform the tasks assigned, planning assumptions, staff roles and responsibilities, and deliverables, along with preparing a conflict of interest disclosure. This work plan also presents the associated costs for travel, other direct costs (ODCs), and other supporting details sufficient for the EPA to evaluate the costs for the project. A scoping meeting was held on January 23, 2017 with the WAM in Libby to discuss the technical aspects of the work plan. It is assumed that a negotiation meeting (by conference call) will be held with EPA on this work plan followed by preparation of a revised work plan.

Subcontractor costs, supplies, equipment, or travel are not anticipated for this subtask. CDM Smith's estimate to complete the work for this subtask is 115 professional level of effort (PLOE) hours and $15,110.

1.2 Site-Specific Plans

Under this subtask, CDM Smith will review potentially responsible party (PRP) plans prepared for PRP-led activities and will also generate specific plans for EPA-led activities. These activities are described below:

- Review of yet-to-be completed PRP plans. CDM Smith will review three known PRP submittals:
  - Phase I data evaluation report
  - Field investigation summary report (stand-alone sampling event)
  - Treatability study work plan
  - Various small PRP submittals (assume 20)
- Review of previously completed PRP plans. CDM Smith will review existing PRP documents that may be revised at the direction of the WAM. For budgeting, these documents are expected to be:
  - Phase I sampling and analysis plan
  - Phase I field sampling plans
  - Site-specific health and safety plan
- Preparation of EPA plans. CDM Smith will draft appropriate site documents and sampling plans for sampling activities associated with this WA as directed by the WAM. These include:
  - Site quality assurance project plan (QAPP). A QAPP (which will include all components of a field sampling plan) will be prepared covering both stand-alone and split sampling activities. At this time, the specified sample media have not been selected by the WAM, but it is assumed that one full round of stand-alone sampling will be conducted. For the purpose of estimating analytical and equipment rental costs, it is assumed that one round of groundwater sampling and two rounds of split sampling will be conducted.
  - Existing data QAPP. CDM Smith will prepare a draft and final QAPP for use of existing data.
  - Health and safety plan. CDM Smith will prepare a draft and final site-specific health and safety plan. Field planning meetings for the split sampling events (two are assumed).

Each QAPP will describe the project objectives and organization, functional activities, and quality assurance (QA)/quality control (QC) protocols that will be used to achieve the desired data quality objectives. The QAPPs will have technical and QA reviews, and the QAPP components will be maintained in accordance with the EPA QA/R-5 (latest draft/revision). A draft version of the QAPP will be submitted for the EPA to review, and CDM Smith will prepare a final version of the QAPP addressing EPA comments. The draft QAPP submittal will be provided to the EPA as an electronic (portable document format [PDF]) file only. The final QAPP submittal will be provided as a PDF file accompanied by two hard copies to the EPA.

No subcontractor costs, supplies, equipment, or travel are anticipated for this subtask. CDM Smith's estimate to complete the work discussed above is 603 PLOE hours and $79,608.

1.3 Project Initiation

As specified in the WAF, the project initiation subtask includes five specific activities:

- PRP laboratory qualifications review. CDM Smith will provide technical staff to review the qualifications of the PRP's laboratory for analytical requirements as stated in the *Phase I Site Characterization Sampling and Analysis Plan Addendum, Columbia Falls Aluminum Company, Columbia Falls, Flathead County, Montana.*

- Analytical services subcontracts. CDM Smith will procure, manage, and provide oversight of pool and team subcontracts for analytical services. This includes setting up subcontracts and paying invoices.

- Background document review. CDM Smith will provide technical staff to review and evaluate chemical, hydrologic, geologic, and geospatial data and the field methodology used to obtain those data during the Phase I investigation.

- PRP work plan review. Minimal PLOE hours have been budgeted to provide review of the PRP's work plan that may be revised over the POP. CDM Smith assumes that the document will be provided in track changes format. The original document review was completed under a different work assignment. CDM Smith will provide a review of the work plan at the direction of the WAM.

- Risk assessment technical memorandum and schedule. CDM Smith will review the human health risk assessment and the ecological risk assessment reports developed by the PRP to ensure they are consistent with EPA risk assessment guidance. It is assumed that reviews will be performed for two drafts of each risk assessment report (initial and draft final). It is expected that the PRP will include all of the datasets used in the risk assessments at the time of the document review. For each risk assessment report, a technical memorandum will be prepared

within 21 days of receipt of the PRP risk assessment report (including all necessary datasets). The review schedules will be contingent upon the timely receipt of the underlying datasets, as reviews will not be initiated until data have been provided in a format that is useful for review and does not require significant compilation or manipulation to reproduce risk estimates. After the completion of each risk assessment review, but before the final technical memorandum is submitted, CDM Smith will meet with EPA to discuss and finalize review comments. CDM Smith will participate in calls with the PRP to discuss comments on the initial draft risk assessment. The level of effort estimates assume the exposure and risk estimates will be able to be reproduced and that significant errors/issues will not be identified.

No subcontractor costs, supplies, or equipment costs are anticipated for this task. Travel costs assume one onsite meeting with EPA and the PRP and are included in the cost summary spreadsheet. CDM Smith's estimate to complete this work is 354 PLOE hours and $48,225.

1.4 Project Management

Project management throughout the POP includes monitoring and tracking costs, preparing monthly status reports, participating in meetings, communicating routinely with the EPA WAM, invoicing, tracking equipment procured by CDM Smith, and providing overall contract management. The following activities will be completed over the 7-month POP from February 20, 2017 through September 27, 2017. An additional 6 months, for a total of 13 months, of PLOE and dollars for this activity have been added in the event the POP for this work assignment is extended.

Activities under the project management subtask are:

- Monthly project status report (MPSR). Communication of expenditure versus completion rate will be performed monthly and requires a total of 6 hours per month over 13 months. Progress will be communicated through expenditure burn charts, schedule updates, detailed incurred and projected costs, and a summary of anticipated problems needing resolution. The MPSR will be prepared by the CDM Smith project manager (PM) and an environmental engineer and subsequently reviewed by the contract finance manager, senior contract manager, and technical reviewer. Invoice processing and report generation, copying, and word processing support will be provided by the contract specialist. Invoices paid for costs billed to the EPA will be maintained by CDM Smith and will be available for review by the EPA. This activity also includes managing, tracking, and reporting status of site-specific equipment.

- Onsite meeting support. As directed by the EPA WAM, CDM Smith will attend technical meetings at the Site or in Helena, Montana. CDM Smith assumes four onsite meetings over 13 months. As directed by the WAM in the scoping meeting, CDM Smith will not prepare meeting

minutes but will review minutes provided by the PRP and provide comments to the EPA as discussed during the scoping meeting. It is assumed that travel will be required for the technical meetings, which will last 1 day.

- Bi-weekly progress meeting. CDM Smith will attend bi-weekly conference calls attended by the EPA, Montana Department of Environmental Quality, the PRP, and their consultant. CDM Smith will not prepare meeting minutes but will review minutes provided by the PRP and provide comments to the EPA as discussed during the scoping meeting. A total of 5 hours per month over 13 months will be required for CDM Smith to prepare, brief the WAM, attend, and review minutes.

- Meetings. CDM Smith will update the EPA WAM on WA progress during one meeting every month over 13 months. The meetings will be attended by an environmental scientist at the Libby Information Center, with the PM connecting in by telephone. These meetings will require a total of 52 hours of PLOE, including preparation time, assuming approximately 1 hour per meeting and capturing meeting minutes.

- Other. When directed by the WAM, CDM Smith project management will accommodate external audits or other review mechanism. Evaluating existing data, including usability, will be completed under Task 6 when directed. Review of background documents will be conducted in Task 1.3 when directed.

No subcontractor costs, supplies, or equipment are anticipated for this subtask. Travel costs are included in the cost summary spreadsheet. CDM Smith's estimate to complete the work for this subtask is 334 PLOE hours and $50,612.

1.5 Quality Assurance

CDM Smith has established a formal quality assurance program to ensure consistently high quality in project deliverables under the EPA Response Action Contract (RAC). Work performed by CDM Smith on this WA will be conducted according to CDM Smith's EPA-approved, contract-specific *RAC II Region 8 Quality Management Plan, Revision 4, dated July 31, 2016*, or latest revision. Documents, such as this work plan, will receive a QA review before transmittal to EPA. Because the number of PLOE hours exceed 1,500 for this WA, one office audit is required to be performed by CDM Smith's authorized QA staff. Travel will not be required for the office audit because all files are located in CDM Smith's electronic file system.

Subcontractor costs, supplies, equipment, and travel are not anticipated for this task. CDM Smith's estimate to complete the work for this task is 44 PLOE hours and $6,502.

Task 2 – Community Involvement

CDM Smith will assist EPA with six community involvement subtasks. These activities will be conducted in support of EPA throughout the RI/FS oversight in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan and EPA community involvement guidance. The scope of the work is described below. Based on the scoping meeting, it was determined that the PRP would take a major role in community involvement. Thus, the following items from the WAF have not been included: conducting community interviews, developing the community involvement plan, providing support for the proposed plan, providing public hearing support, maintaining the public information repository, developing and updating site mailing lists, and providing administrative and technical support for the responsiveness summary. In addition, at the direction of the WAM, the level of PLOE for the remaining subtasks is minimal.

2.1 Public Meetings

CDM Smith will provide limited community involvement support as needed for public meetings. Budget has been included for travel and attendance by CDM Smith's Community Involvement Coordinator (CIC) to facilitate or assist at two meetings in Columbia Falls. It is assumed that this support will be needed only if EPA's CIC cannot attend the meeting. Otherwise, limited community involvement support generally will be provided by other CDM Smith staff who are already attending the meeting and the EPA WAM let CDM Smith know who should attend. Clerical support is included for making arrangements for the meeting hall. For budgeting purposes, it is assumed that two trips to the Site from Helena will be made for the public meetings. If both the CIC and PM are attending, they will use the same vehicle.

Subcontractor and equipment costs are not anticipated. Travel and ODCs are included in cost summary sheet. CDM Smith's estimate to complete this work is 70 PLOE hours and $11,603.

2.2 Fact Sheets

Fact sheets will be prepared by EPA CIC. Drafts will be reviewed by CDM Smith's CIC and comments will be provided to EPA. The budget assumes review of three fact sheets. Printing and publishing costs associated with this subtask will be handled by the PRP.

Subcontractor, travel, and equipment costs are not anticipated. CDM Smith's estimate to complete this work is 9 PLOE hours and $1,302.

2.3 Public Notices

CDM Smith's clerical staff will submit four public notices announcing meetings related to the Site. The public notices will be drafted by the EPA. The notices will be published in the three local newspapers: *Hungry Horse News*, *Daily Inter Lake*, and the *Flathead Beacon*. Costs include transmittal of the notices to the newspapers as well as clerical and PLOE time for processing of the invoices.

Subcontractor, travel, and equipment costs are not anticipated. ODCs include costs for placement of the notices in the three papers on four occasions. CDM Smith's estimate to complete this work is 12 PLOE hours and $4,460.

2.4 Presentation Materials

It is anticipated that the need for presentation materials for public meetings will be minor. CDM Smith has budgeted minimal PLOE for assistance in prepare display materials for one or more public meetings. It is anticipated that this may include posters or small handouts.

Subcontractor, travel, and equipment costs are not anticipated. ODCs include costs for placement of the notices in the three papers on four occasions. CDM Smith's estimate to complete this work is 8 PLOE hours and $1,158.

2.5 Other Community Involvement Activities

Minimal PLOE has been budgeted for assistance from the CIC with community involvement activities that may arise over the period of performance. CDM Smith will provide clerical staff to assist the WAM and CIC with preparing for miscellaneous CIC tasks.

Subcontractor, travel, and equipment costs are not anticipated. CDM Smith's estimate to complete this work is 45 PLOE hours and $9,202.

2.6 Technical Support to Review CI Deliverables

In addition, upon request the CIC will assist the EPA WAM with providing comments to community involvement plan that will be prepared by EPA CIC.

Subcontractor costs travel, and equipment are not anticipated for this task. CDM Smith's estimate to complete the work for this task is 20 PLOE hours and $3,029.

Task 3 – Field Investigation/Data Acquisition

CDM Smith will provide technical oversight to document the PRP's performance of fieldwork along with collection of environmental samples at the direction of the WAM. This will entail five subtasks; the costs and assumptions for which are detailed below.

3.1 Oversight of PRP Activities

CDM Smith will provide technical oversight and documentation of the PRP's field activities during sampling events. This will include an assessment of the sampling, screening, and testing performed by the PRP and preparation of technical oversight reports summarizing the PRP's field investigation activities. Based on the scoping meeting, 10 oversight events, using one CDM Smith technical staff member, and lasting 2 days each, are assumed.

Subcontractor and equipment costs are not anticipated for this task. Travel costs are included in the cost summary spreadsheet. CDM Smith's estimate to complete the work is 346 PLOE hours and $50,333.

3.2 Collection of Split Sampling

CDM Smith will collect split samples in accordance with the QAPP developed by the PRP. Sample handling and analysis will then be conducted in accordance with CDM Smith's QAPP. It is assumed there will be two events in which split sampling will be conducted. The specific sample number and media type are not known, but for the purposes of this work plan, it is assumed that 11 samples will be collected during each event for analysis, validation, evaluation, and upload. The samples will be collected by one CDM Smith technical staff member.

Subcontractor costs are not anticipated for this task. Assumptions for analytical costs are included in Subtask 4.1. Travel costs, supplies, and equipment (i.e., rental of a water quality meter) for this task are included in the cost summary spreadsheet. A summary email describing the sample collection and results will be provided to the WAM. CDM Smith's estimate to complete the work is 92 PLOE hours and $11,685.

3.3 Stand-Alone Sampling

Based on the scoping meeting, CDM Smith assumes that one stand-alone sampling event will be conducted at the direction of the WAM. This task includes the collection of environmental samples for remedial investigation oversight. The project QAPP, developed under Subtask 1.2, will be used to support sample collection under this task. Support under this task will include collection, preparation, and shipment of samples according to the QAPP. This sampling event assumes that 66 wells will be sampled over a 10-day period by two CDM Smith two technical staff. With QA samples, this results in 84 samples that will be collected for analysis, validation, evaluation, and upload.

Subcontractor costs are not anticipated for this task. CDM Smith's estimate to complete the work for this task is 252 PLOE hours and $31,186. Travel costs, supplies, and equipment (i.e., rental of a water quality meter) for this task are included in the cost summary spreadsheet.

3.4 Field Investigation Summary Report

On completion of the stand-alone sampling event, CDM Smith will prepare a field investigation summary report. The report will include the brief description of the sampling event, number of samples collected, logbooks, field forms, any potential deviations for the QAPP, or any other notable events. Hours for technical and editorial review are also included.

Subcontractor costs, equipment, and travel are not anticipated for this task. CDM Smith's estimate to complete this work is 40 PLOE hours and $10,126.

3.5 Technical Oversight Reports

Monthly technical oversight reports will be prepared and will include copies of CDM Smith's field logbooks and field sampling forms. CDM Smith assumes two split sampling events and one oversight event during field investigation activities over 15 months. Hours for technical and editorial review are also included.

Subcontractor costs, equipment, and travel are not anticipated for this task. CDM Smith's estimate to complete this work is 65 PLOE hours and $8,625.

Task 4 – Sample Analysis

This task describes the sample analysis that will be performed for both the two split sampling events and the single stand-alone sampling event. The samples will be analyzed using EPA's Contract Laboratory Program, laboratories procured under sub-pool or team subcontracts, Regional Environmental Services Division, the Environmental Response Team laboratory, or by regionally procured laboratories. The specific laboratory mechanism for analyzing the samples has not been determined. CDM Smith anticipates receiving future technical direction from the EPA WAM regarding the laboratory mechanism to be used for the WA.

As directed in the WAF, this task does not include any labor costs. PLOE hours for setting up, tracking, and processing invoices for analysis of the samples are included in Task 5.

4.1 Split Sampling

Split samples will be processed and shipped to the designated laboratories in support of two field investigations in accordance with the appropriate QAPP. The assumed number of samples to collect during the two split sampling events is 11 samples per event. For costing purposes, samples will be analyzed for volatile organic compounds, semi volatile organic compounds, metals, cyanide, wet chemistry parameters, pesticide and polychlorinated biphenyls analysis at an estimated cost of $518 per sample.

Subcontractor analytical costs are provided in Exhibit D of the cost summary and total $12,540.

4.2 Stand-Alone Sampling

Stand-alone samples will be processed and shipped to the designated laboratories in support of the field investigation in accordance with the appropriate QAPP expenses have been included in the cost summary spreadsheet for the assumed quantities of samples. For costing purposes, 85 samples will be analyzed for volatile organic compounds, semi volatile organic compounds, metals, cyanide, wet chemistry parameters, pesticide and polychlorinated biphenyls analysis at an estimated cost of $518 per sample.

Subcontractor analytical costs are provided in Exhibit D of the cost summary and total $48,449.

Task 5 – Analytical Support and Data Validation

CDM Smith will provide technical staff to complete the review of environmental sample results for remedial design oversight purposes, coordinating with the EPA Sample Management Office, the Regional Sample Control Coordinator, and the Environmental Services Division, and provide validation of the analytical data.

The number and type of samples are not known at the time of work plan preparation, so a total of 22 split and 85 stand-alone groundwater samples have been assumed. The costs and assumptions associated with the five subtasks in Task 5 are provided below.

5.1 Laboratory Analysis Oversight

CDM Smith will coordinate with the PRP and the laboratories to track and oversee sample analysis. This will be done for each sampling event.

Subcontractor, equipment, and travel costs are not anticipated for this task. CDM Smith's estimate to complete this work is 32 PLOE hours and $4,765.

5.2 Coordination with EPA Sample Manager

CDM Smith will request and obtain analytical services that are available from EPA's CLP laboratories in accordance with the appropriate QAPP. This may also include picking up electronic data deliverable (EDD) packages from EPA as they are completed.

Subcontractor, equipment, and travel costs are not anticipated for this task. CDM Smith's estimate to complete this work is 26 PLOE hours and $3,129.

5.3 Data Management Plan

A standard CDM Smith data management plan will be developed to cover sample management, sample retention times, and 10-year data storage. Technical and editorial review are included.

Subcontractor, equipment, and travel costs are not anticipated for this task. CDM Smith's estimate to complete this work is 14 PLOE hours and $1,666.

5.4 Data Validation

Validation of the 22 split and 85 stand-alone samples will be conducted in accordance with the appropriate QAPP. For budgeting purposes, it is assumed that full validation of 20 percent of the samples will be adequate, along with 100 percent check of holding times, preservation, and chain of custodies. If serious problems were identified in the 20 percent validation, the WAM will be notified and a recommendation regarding an increase in the percentage of samples would be provided.

Subcontractor, equipment, and travel costs are not anticipated for this task. CDM Smith's estimate to complete this work is 70 PLOE hours and $8,436.

5.5 Data Validation and Usability Summary Report

The secondary data QAPP, developed under Subtask 1.4, will be followed to review data for usability. CDM Smith data validation specialist will prepare a standard data validation and usability summary report (DVUSR) for the split samples and one for the stand-alone samples. The reports will be provided within 45 days of completion of data validation. Technical and editorial review are included.

Subcontractor, equipment, and travel costs are not anticipated for this task. CDM Smith's estimate to complete this work is 46 PLOE hours and $5,768.

Task 6 – Data Evaluation

6.1 Upload of Historical Data

The PRP's website indicates that there are over 200,000 records in their database, ranging from September 2013 to December 2016. These include:

- 71,302 lab control samples
- 11,207 equipment blanks or trip blanks
- 117,921 normal or field duplicates
- There are 222 trip blanks or lab dup records that are mislabeled as normal samples

CDM Smith will be loading the normal and field duplicate samples and excluding spikes and surrogates for a total estimate of 115,000 records. Issues may arise in the upload of the data that are not known at this time, such as figuring out the qualifiers and reportable results field, which should be done by a chemist. We also may have questions for the PRP's consultant, Roux.

Based on our knowledge of the data set as this time, CDM Smith has budgeted 30 PLOE hours and $4,473 for the upload of historical data to Scribe. Subcontractor, equipment, and travel costs are not anticipated for this task.

6.2 Upload of Newly Collected Data

CDM Smith will compile data that were collected under this work plan into a project database, which will be used to create report tables, conduct risk assessment, and develop data visualization products. CDM Smith will deliver data compiled under this work plan to the EPA in the form of a Scribe database. Support under this task includes review of PRP's electronic data deliverable, lab reports, and PRP database (using EPA regional guidelines) and a letter report on data validation and usability. Coordinating with the PRP to collect split samples will be covered in Task 3.

CDM Smith will review, QC, and upload the data from the newly collected split and stand-alone sampling events to EPA's Scribe database. This activity depends directly on the number and type of EDDs that will be received, which is unknown at this time; however, CDM Smith has budgeted 49 PLOE hours and $6,070 for the upload of new data to Scribe. Subcontractor, equipment, and travel costs are not anticipated for this task.

6.3 Split Sample Data Summary Comparison

CDM Smith will prepare a data usability report and detailed data evaluation of the split samples collected under Task 3. The report will include a discussion of the analytical results, a comparison of the PRP sampling data with the split samples analyzed by EPA, and a discussion section that describes discrepancies between the PRP's and EPA's samples results. This task also includes completing a brief comparison of data collected by CDM Smith and data collected by the PRP. Hours for technical and editorial review are also included.

Subcontractor costs, travel, supplies, or equipment are not anticipated for this task. CDM Smith's estimate to complete the work for this task is 120 PLOE hours and $15,318.

Task 15 – WA Closeout

EPA will notify CDM Smith when the activities required for the WA are complete and WA closeout should be prepared. Following notification, CDM Smith will provide an estimate of final costs. These include the amount of funding allocated to the WA; approved budget; all costs that have been incurred completing the activities required by this WA; all costs incurred but not invoiced; the anticipated cost to close out the WA, such as copying, shipping, and other administrative records; and final project total costs.

If requested, CDM Smith will provide a documented list for this WA for review by the EPA WAM for duplication check. CDM Smith will provide EPA with additional copies of project documents upon request either in electronic or hard copy format. CDM Smith also will return any documents to the EPA or other document repositories as applicable. CDM Smith will complete administrative activities as defined in the contract for file retention, which includes file archiving to meet Federal Center requirements, distribution, and storage.

CDM Smith will prepare and submit with the final invoice an accounting of costs and PLOE by subtask and compare it to the projected budget.

Subcontractor costs, travel, supplies, or equipment are anticipated for this subtask. CDM Smith's estimate to complete this work is 20 PLOE hours and $2,976.

Project Deliverables

CDM Smith will submit the following deliverables:

Task	Deliverable	Submittal/Other Dates
1	Remedial design oversight amended work plan	February 22, 2017
1.1	Negotiated work plan	7 days after receipt of comments
1.2	Health and safety plan	28 days after approval of work plan
1.2	Sampling and analysis plan	28 days after notice to proceed with sampling
1.2	QAPP	28 days after notice to proceed with data review
1.2	PRP submittals	As required
1.2	Comments on PRP's health and safety plan	14 days after receipt of PRP's document
1.2	Comments on PRP's QAPP	14 days after receipt of PRP's document
1.2	Comments on PRP's field sampling plan	14 days after receipt of PRP's document
1.2#	Comments on PRP's treatability study work plan	21 days after receipt of PRP's document
1.3#	Response to PRP Phase I data evaluation report	As required
1.3	Response to PRP's human health risk report	As required
1.3	Response to PRP's ecological risk assessment report	As required
1.3	Risk assessment report	21 days after receipt of PRP's document
1.4	Monthly progress status reports	Monthly
2	Technical review of CIC documents	As required
3	Technical (field) oversight reports	5 days after completion of fieldwork
3	Field investigation summary report	As required
5	Data evaluation report	30 days after receipt of analytical results
15	Work assignment closeout report	September 27, 2017
15	Final costs	90 days after work assignment closeout
# Not in WAF list of deliverables		

Project Personnel

In order to streamline the activities of this task, CDM Smith will utilize the project team already established for this WA. CDM Smith personnel proposed at this time and their responsibilities involved with the project are presented below.

Project Staff	Name	Level
Program manager	Kris Chapman	P4
Technical reviewer	Mark Hills	P4
Risk assessor	Lynn Woodbury	P4
Treatability reviewer	Roger Olsen/Kent Whiting	P4
Chemist	Scott Kirchner	P4
Project manager	Gunnar Emilsson	P3
Environmental scientist	Curt Coover	P3
Treatability engineer, senior	Angela Frandsen	P3
Treatability engineer, senior	Nick Anton	P3
Local QA specialist/scientist	Bob Alexander	P3
Community involvement coordinator	Karen Ekstrom	P3
Environmental scientist	Cherie Zakowski	P3
Data manager	Catherine Love	P3
Environmental scientist	Erin Formanek	P3
Financial manager	Talia Zaczkowski	P2
Environmental scientist	Damon Repine	P2
Environmental scientist	Sean Coan	P2
Treatability engineer, junior	TBD	P2
Environmental scientist	Natalie Ross	P2
Environmental scientist	Rebecca Farmer	P2
Environmental scientist	Nancy Podolinsky	P1
Technical editor	Traci Mordell	P1
Procurement specialist	Raquel Cisneros	T1

It is assumed the above staff will work on the project. This assumption is subject to change based on scheduling factors. If a staff member identified in this plan is not available, every attempt to find a staff member with similar technical experience will be made.

Program Management

CDM Smith's estimate to complete the program management associated with this work plan is 127 PLOE hours and $17,791.

Business Confidentiality

This work plan amendment includes data that shall not be disclosed outside the government and shall not be duplicated, used, or disclosed -- in whole or in part -- for any purpose other than to evaluate the work plan. The government shall have the right to duplicate, use, or disclose the data to the extent provided in remedial action contract number EP-W-05-049. The restriction does not limit the government's right to use information contained in this document if it is obtained from another source without restriction. This restriction applies to all data in this proposal.

It is our understanding that upon your approval of the option period scope and budget presented in this work plan, a WAF modifying the expenditure limit of the WA will be issued.

If you have any questions or comments, please feel free to call me at (303) 383-2300. We look forward to our continued support to EPA on this contract.

Sincerely,

Kristine E. Chapman, PMP
CDM Federal Programs Corporation

Attachments

cc: Evelyn Stanley, EPA Contracting Officer
Mike Cirian, EPA Work Assignment Manager
Talia Zaczkowski, CDM Smith Financial Manager
Gunnar Emilsson, CDM Smith Project Manager
RAC8 Contract Files

CDM FEDERAL PROGRAMS CORPORATION
COST ESTIMATE SUMMARY

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

LABOR — EXHIBIT A

Labor Category		Hours	Raw Dollars
P4		102	$7,244
P3		1,210	$64,239
P2		1,204	$48,786
P1		268	$9,016
T1		32	$732
C		123	$3,251
Total Raw Labor		2,939	$133,268
Fringe	39.50%		$52,641
Overhead	54.20%		$100,763
Total Labor Costs			**$286,673**

OTHER DIRECT COSTS — EXHIBIT B

Other Direct Costs	$7,484
Equipment Rental	$2,400
Total Other Direct Costs	**$9,884**

TRAVEL — EXHIBIT C

Transportation	$4,920
Lodging/Meals	$12,261
Total Travel	**$17,181**

SUBCONTRACTORS — EXHIBIT D

	PLOE Hours	
CDM Smith Labor	0	$0
Team Subcontractor ODCs/Travel		$0
Pool Subcontractors		$55,426
Subtotal Subcontractor Costs	**0**	**$55,426**

TOTAL COSTS

Subtotal (Labor, ODCs, Travel, and Subcontractor)			$369,163
Subcontractor Overhead	4.30%		$2,383
G & A	18.30%		$57,850
Fixed Fee ($8.60/PLOE Hour + 4.71% of Pool Subcontractor and Indirect Costs on Pool Subcontractor)			$26,959
Total Work Plan PLOE/Costs		**2,816**	**$456,355**
Program Support Allocation	4.5%	127	$17,791
Total Cost Plus Program Support		**2,943**	**$474,147**

Base Fee Calculation: The base fee is calculated as follows:
Fee on LOE, excluding Program Support Allocation (LOE multiplied by $8.60/LOE Hour), plus
Fee on unburdened subcontracting pool (subcontracting pool multiplied by .0471), plus
Fee on subcontractor overhead applied to unburdened subcontracting pool (subcontracting pool multiplied by subcontractor overhead rate multiplied by .0471), plus
Fee on G&A applied to subcontractor overhead on unburdened subcontracting pool (subcontractor overhead multiplied by G&A rate multiplied by .0471)
Program Support Allocation applied to total PLOE/Costs minus fully burdened subpool

Confidential Business Information

Task Summary - Totals

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

Task No.	Description	TASK CODE	Total PLOE Hours (1)	Labor Costs	ODCs (2)	Equipment	Travel	Subcontractor	Subcontractor Overhead	G&A	Fixed Fee	Total Cost
1.0	**Project Planning & Support**	**PPZ**	**1,450.0**	**$155,166**	**$1,233**	**$0**	**$2,171**	**$0**	**$0**	**$29,018**	**$12,469**	**$200,056**
1.1	Develop & Negotiate Work Plan	WKPLN	115.0	$11,839	$98	$0	$0	$0	$0	$2,184	$989	$15,110
1.2	Site Specific Plans	SSPLN	603.0	$62,397	$513	$0	$0	$0	$0	$11,512	$5,185	$79,608
1.3	Project Initiation	INITZ	354.0	$37,891	$301	$0	$0	$0	$0	$6,989	$3,044	$48,225
1.4	Project Management	ADMIN	334.0	$37,900	$284	$0	$2,171	$0	$0	$7,385	$2,872	$50,612
1.5	Quality Assurance	QUALZ	44.0	$5,139	$37	$0	$0	$0	$0	$947	$378	$6,502
2.0	**Community Involvement**	**CRZ**	**164.0**	**$20,873**	**$3,039**	**$0**	**$892**	**$0**	**$0**	**$4,539**	**$1,410**	**$30,754**
2.1	Public Meetings	MEETZ	70.0	$7,848	$560	$0	$892	$0	$0	$1,702	$602	$11,603
2.2	Fact Sheets	FACTZ	9.0	$1,028	$8	$0	$0	$0	$0	$189	$77	$1,302
2.3	Public Notices	PBLNT	12.0	$1,273	$2,410	$0	$0	$0	$0	$674	$103	$4,460
2.4	Presentation Materials	PRSNT	8.0	$914	$7	$0	$0	$0	$0	$168	$69	$1,158
2.5	Other Community Involvement Activities	OTRCI	45.0	$7,413	$38	$0	$0	$0	$0	$1,364	$387	$9,202
2.6	Technical Support to Review CI Deliverables	CIDEL	20.0	$2,398	$17	$0	$0	$0	$0	$442	$172	$3,029
3.0	**Field Investigation/Data Acquisition**	**FIZ**	**795.0**	**$69,475**	**$2,866**	**$2,400**	**$14,118**	**$0**	**$0**	**$16,261**	**$6,836**	**$111,956**
3.1	Oversight of PRP Activities	OVPRP	346.0	$30,818	$294	$0	$8,920	$0	$0	$7,326	$2,975	$50,333
3.2	Split Sampling	SPLITZ	92.0	$7,053	$818	$0	$1,338	$0	$0	$1,685	$791	$11,685
3.3	Stand Alone Sampling	STDAL	252.0	$20,466	$1,664	$2,400	$0	$0	$0	$4,489	$2,167	$31,186
3.4	Field Investigation Summary Report	FISRT	40.0	$4,375	$34	$0	$3,860	$0	$0	$1,513	$344	$10,126
3.5	Technical Oversight Reports	OVRPT	65.0	$6,763	$55	$0	$0	$0	$0	$1,248	$559	$8,625
4.0	**Sample Analysis**	**SNZ**	**0.0**	**$0**	**$0**	**$0**	**$0**	**$55,426**	**$2,383**	**$436**	**$2,743**	**$60,989**
4.1	Split Sampling Analytical	SSANL	0.0	$0	$0	$0	$0	$11,396	$490	$90	$564	$12,540
4.2	Stand Alone Sampling Analytical	SAANL	0.0	$0	$0	$0	$0	$44,030	$1,893	$346	$2,179	$48,449
5.0	**Analytical Support and Data Validation**	**ANZ**	**188.0**	**$18,561**	**$160**	**$0**	**$0**	**$0**	**$0**	**$3,426**	**$1,617**	**$23,764**
5.1	Laboratory Analysis Oversight	LABOV	32.0	$3,768	$27	$0	$0	$0	$0	$695	$275	$4,765
5.2	Coordination with EPA Sample ManageR	COORD	26.0	$2,434	$22	$0	$0	$0	$0	$449	$224	$3,129
5.3	Data Management Plan	DMPLN	14.0	$1,294	$12	$0	$0	$0	$0	$239	$120	$1,666
5.4	Data Validation	VALID	70.0	$6,563	$60	$0	$0	$0	$0	$1,212	$602	$8,436
5.5	Data Validation/Usablity Summary Reports	SMRPT	46.0	$4,502	$39	$0	$0	$0	$0	$831	$396	$5,768
6.0	**Data Evaluation**	**DEZ**	**199.0**	**$20,245**	**$169**	**$0**	**$0**	**$0**	**$0**	**$3,736**	**$1,711**	**$25,861**
6.1	Upload of Historical Data to SCRIBE	HSTSB	30.0	$3,538	$26	$0	$0	$0	$0	$652	$258	$4,473
6.2	Upload Newly Collected Data	NWDTA	49.0	$4,733	$42	$0	$0	$0	$0	$874	$421	$6,070
6.3	Split Sample Data Summary Comparison	SSCMP	120.0	$11,974	$102	$0	$0	$0	$0	$2,210	$1,032	$15,318
15.0	**Work Assignment Closeout**	**COZ**	**20.0**	**$2,353**	**$17**	**$0**	**$0**	**$0**	**$0**	**$434**	**$172**	**$2,976**
15.1	Work Assignment Closeout	CLOSE	20.0	$2,353	$17	$0	$0	$0	$0	$434	$172	$2,976
	Total Costs		**2,816.0**	**$286,673**	**$7,484**	**$2,400**	**$17,181**	**$55,426**	**$2,383**	**$57,850**	**$26,959**	**$456,355**

(1) Total PLOE = sum of CDM Federal Programs Corporation and team subcontractor professional labor hours
(2) ODCs = sum of mail/delivery and supplies

Confidential Business Information

Exhibit A - CDM Federal Programs Corporation Labor Costs

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

Task No.	Description	$71.02 P4	$53.09 P3	$40.52 P2	$33.64 P1	$22.87 T1	$26.43 C	PLOE	Total Raw Labor Cost	39.50% Fringe	54.20% OH	Labor Cost
1.0	**Project Planning & Support**	**82**	**865**	**475**	**12**	**16**	**14**	**1,450**	**$72,133**	**$28,493**	**$54,539**	**$155,166**
1.1	Develop & Negotiate Work Plan	12	36	63	4	0	2	115	$5,504	$2,174	$4,161	$11,839
1.2	Site Specific Plans	24	293	286	0	0	6	603	$29,007	$11,458	$21,932	$62,397
1.3	Project Initiation	16	244	70	8	16	2	354	$17,615	$6,958	$13,318	$37,891
1.4	Project Management	30	248	56	0	0	2	334	$17,619	$6,960	$13,322	$37,900
1.5	Quality Assurance	0	44	0	0	0	2	44	$2,389	$944	$1,806	$5,139
2.0	**Community Involvement**	**0**	**148**	**0**	**0**	**16**	**56**	**164**	**$9,703**	**$3,833**	**$7,337**	**$20,873**
2.1	Public Meetings	0	66	0	0	4	2	70	$3,648	$1,441	$2,758	$7,848
2.2	Fact Sheets	0	9	0	0	0	0	9	$478	$189	$361	$1,028
2.3	Public Notices	0	0	0	0	12	12	12	$592	$234	$447	$1,273
2.4	Presentation Materials	0	8	0	0	0	0	8	$425	$168	$321	$914
2.5	Other Community Involvement Activities	0	45	0	0	0	40	45	$3,446	$1,361	$2,606	$7,413
2.6	Technical Support to Review CI Deliverable	0	20	0	0	0	2	20	$1,115	$440	$843	$2,398
3.0	**Field Investigation/Data Acquisition**	**0**	**53**	**519**	**223**	**0**	**36**	**795**	**$32,297**	**$12,757**	**$24,420**	**$69,475**
3.1	Oversight of PRP Activities	0	16	330	0	0	4	346	$14,327	$5,659	$10,832	$30,818
3.2	Split Sampling	0	4	0	88	0	4	92	$3,279	$1,295	$2,479	$7,053
3.3	Stand Alone Sampling	0	4	124	124	0	4	252	$9,514	$3,758	$7,194	$20,466
3.4	Field Investigation Summary Report	0	12	20	8	0	12	40	$2,034	$803	$1,538	$4,375
3.5	Technical Oversight Reports	0	17	45	3	0	12	65	$3,144	$1,242	$2,377	$6,763
4.0	**Sample Analysis**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$0**	**$0**	**$0**	**$0**
4.1	Split Sampling Analytical	0	0	0	0	0	0	0	$0	$0	$0	$0
4.2	Stand Alone Sampling Analytical	0	0	0	0	0	0	0	$0	$0	$0	$0
5.0	**Analytical Support and Data Validation**	**2**	**58**	**114**	**14**	**0**	**12**	**188**	**$8,629**	**$3,408**	**$6,524**	**$18,561**
5.1	Laboratory Analysis Oversight	0	32	0	0	0	2	32	$1,752	$692	$1,324	$3,768
5.2	Coordination with EPA Sample ManageR	0	2	24	0	0	2	26	$1,132	$447	$856	$2,434
5.3	Data Management Plan	0	4	0	10	0	2	14	$602	$238	$455	$1,294
5.4	Data Validation	2	8	60	0	0	2	70	$3,051	$1,205	$2,307	$6,563
6.0	**Data Evaluation**	**12**	**78**	**90**	**19**	**0**	**5**	**199**	**$9,411**	**$3,718**	**$7,116**	**$20,245**
6.1	Upload of Historical Data to SCRIBE	12	4	12	2	0	1	30	$1,645	$650	$1,243	$3,538
6.2	Upload Newly Collected Data	0	20	16	13	0	2	49	$2,200	$869	$1,664	$4,733
6.3	Split Sample Data Summary Comparison	0	54	62	4	0	2	120	$5,567	$2,199	$4,209	$11,974
15.0	**Work Assignment Closeout**	**6**	**8**	**6**	**0**	**0**	**0**	**20**	**$1,094**	**$432**	**$827**	**$2,353**
15.1	Work Assignment Closeout	6	8	6	0	0	0	20	$1,094	$432	$827	$2,353
	Total Labor Cost	**102**	**1,210**	**1,204**	**268**	**32**	**123**	**2,816**	**$133,268**	**$52,641**	**$100,763**	**$286,673**

Confidential Business Information

EXHIBIT A-1: LABOR MATRIX

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

		P4 PERSONNEL						P3 PERSONNEL								P2 PERSONNEL							P1 PERSONNEL			T1 PERSONNEL		CLERICAL PERSONNEL			
Task No.	Description	Chapman	Woodbury	Hills	Kirchner	Olsen/Whiting	P4 TOTAL	Alexander	Coover	Formanek	Ekstrom	Zakowski	Love	Frandsen/Anton	Emilsson	P3 TOTAL	Zaczkowski	Repine	Coan	Ross	Farmer	TBD (Treatability)	P2 TOTAL	Podolinsky	Mordell	P1 TOTAL	Cisneros	T1 TOTAL	TBD	CLERICAL	TOTAL PLOE
1.0	**Project Planning & Support**																														
1.1	Develop & Negotiate Work Plan	12					**12**	3	6	5	16				6	**36**	4	49	10				**63**		4	**4**		**0**	2	**2**	**115**
1.2	Site Specific Plans			14		10	**24**	61	66	26		21	1	100	18	**293**			200	30	8	48	**286**			**0**		**0**	6	**6**	**603**
1.3	Project Initiation		16				**16**	40	10	166		10	8		10	**244**			70				**70**		8	**8**	16	**16**	2	**2**	**354**
1.4	Project Management	30					**30**								248	**248**	30	26					**56**			**0**		**0**	2	**2**	**334**
1.5	Quality Assurance						**0**	40							4	**44**							**0**			**0**		**0**	2	**2**	**44**
2.0	**Community Involvement**																														
2.1	Public Meetings						**0**				50				16	**66**							**0**			**0**	4	**4**	2	**2**	**70**
2.2	Fact Sheets						**0**				9					**9**							**0**			**0**		**0**		**0**	**9**
2.3	Public Notices						**0**									**0**							**0**			**0**	12	**12**	12	**12**	**12**
2.4	Presentation Materials						**0**				8					**8**							**0**			**0**		**0**		**0**	**8**
2.5	Other Community Involvement Activities						**0**				45					**45**							**0**			**0**		**0**	40	**40**	**45**
2.6	Technical Support to Review CI Deliverables						**0**				20					**20**							**0**			**0**		**0**	2	**2**	**20**
3.0	**Field Investigation/Data Acquisition**																														
3.1	Oversight of PRP Activities						**0**								16	**16**			330				**330**			**0**		**0**	4	**4**	**346**
3.2	Split Sampling						**0**								4	**4**							**0**	88		**88**		**0**	4	**4**	**92**
3.3	Stand Alone Sampling						**0**								4	**4**			124				**124**	124		**124**		**0**	4	**4**	**252**
3.4	Field Investigation Summary Report						**0**			10					2	**12**			20				**20**		8	**8**		**0**	12	**12**	**40**
3.5	Technical Oversight Reports						**0**		15						2	**17**			45				**45**		3	**3**		**0**	12	**12**	**65**
4.0	**Sample Analysis**																														
4.1	Split Sampling Analytical						**0**									**0**							**0**			**0**		**0**		**0**	**0**
4.2	Stand Alone Sampling Analytical						**0**									**0**							**0**			**0**		**0**		**0**	**0**
5.0	**Analytical Support and Data Validation**																														
5.1	Laboratory Analysis Oversight						**0**					30			2	**32**							**0**			**0**		**0**	2	**2**	**32**
5.2	Coordination with EPA Sample ManageR						**0**								2	**2**					24		**24**			**0**		**0**	2	**2**	**26**
5.3	Data Management Plan						**0**						2		2	**4**							**0**	10		**10**		**0**	2	**2**	**14**
5.4	Data Validation		2				**2**					6			2	**8**				30	30		**60**			**0**		**0**	2	**2**	**70**
5.5	Data Validation/Usablity Summary Reports						**0**					10			2	**12**					30		**30**		4	**4**		**0**	4	**4**	**46**
6.0	**Data Evaluation**																														
6.1	Upload of Historical Data to SCRIBE				12		**12**						2		2	**4**					12		**12**	2		**2**		**0**	1	**1**	**30**
6.2	Upload Newly Collected Data						**0**						16		4	**20**					16		**16**	13		**13**		**0**	2	**2**	**49**
6.3	Split Sample Data Summary Comparison						**0**			48					6	**54**				50	12		**62**		4	**4**		**0**	2	**2**	**120**
15.0	**Work Assignment Closeout**																														
15.1	Work Assignment Closeout	6					**6**					2			6	**8**	6						**6**			**0**		0		**0**	**20**
	TOTAL HOURS BY EMPLOYEE	**48**	**18**	**14**	**12**	**10**	**102**	**144**	**97**	**255**	**148**	**79**	**29**	**100**	**358**	**1,210**	**40**	**75**	**799**	**110**	**132**	**48**	**1,204**	**237**	**31**	**268**	**32**	**32**	**123**	**123**	**2,816**

Confidential Business Information

Exhibit B: OTHER DIRECT COSTS

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

Task No.	Description	PLOE Hours	Mail/Delivery $0.85 /LOE Hour	Supplies (1)	Equipment Rental (1)	Total Cost
1.0	**Project Planning & Support**	**1450**	**$1,233**	**$0**	**$0**	**$1,233**
1.1	Develop & Negotiate Work Plan	115	$98	$0	$0	$98
1.2	Site Specific Plans	603	$513	$0	$0	$513
1.3	Project Initiation	354	$301	$0	$0	$301
1.4	Project Management	334	$284	$0	$0	$284
1.5	Quality Assurance	44	$37	$0	$0	$37
2.0	**Community Involvement**	**164**	**$139**	**$2,900**	**$0**	**$3,039**
2.1	Public Meetings	70	$60	$500	$0	$560
2.2	Fact Sheets	9	$8	$0	$0	$8
2.3	Public Notices	12	$10	$2,400	$0	$2,410
2.4	Presentation Materials	8	$7	$0	$0	$7
2.5	Other Community Involvement Activities	45	$38	$0	$0	$38
2.6	Technical Support to Review CI Deliverables	20	$17	$0	$0	$17
3.0	**Field Investigation/Data Acquisition**	**795**	**$676**	**$2,190**	**$2,400**	**$5,266**
3.1	Oversight of PRP Activities	346	$294	$0	$0	$294
3.2	Split Sampling	92	$78	$740	$0	$818
3.3	Stand Alone Sampling	252	$214	$1,450	$2,400	$4,064
3.4	Field Investigation Summary Report	40	$34	$0	$0	$34
3.5	Technical Oversight Reports	65	$55	$0	$0	$55
4.0	**Sample Analysis**	**0**	**$0**	**$0**	**$0**	**$0**
4.1	Split Sampling Analytical	0	$0	$0	$0	$0
4.2	Stand Alone Sampling Analytical	0	$0	$0	$0	$0
5.0	**Analytical Support and Data Validation**	**188**	**$160**	**$0**	**$0**	**$160**
5.1	Laboratory Analysis Oversight	32	$27	$0	$0	$27
5.2	Coordination with EPA Sample ManageR	26	$22	$0	$0	$22
5.3	Data Management Plan	14	$12	$0	$0	$12
5.4	Data Validation	70	$60	$0	$0	$60
5.5	Data Validation/Usablity Summary Reports	46	$39	$0	$0	$39
6.0	**Data Evaluation**	**199**	**$169**	**$0**	**$0**	**$169**
6.1	Upload of Historical Data to SCRIBE	30	$26	$0	$0	$26
6.2	Upload Newly Collected Data	49	$42	$0	$0	$42
6.3	Split Sample Data Summary Comparison	120	$102	$0	$0	$102
15.0	**Work Assignment Closeout**	**20**	**$17**	**$0**	**$0**	**$17**
15.1	Work Assignment Closeout	20	$17	$0	$0	$17
	Total Other Direct Costs	**2,816**	**$2,394**	**$5,090**	**$2,400**	**$9,884**

(1) See Exhibit B-1 for Supplies and Equipment Rental.

Confidential Business Information

Exhibit B-1: Supplies and Equipment Rental Backup

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

Task No.	Description	Supplies				Equipment Rental				Comments
		Qty	Unit Cost	Unit Type	Estimated Cost	Qty	Unit Cost	Unit Type	Estimated Cost	
1.0	**Project Planning & Support**				**$ -**				**$ -**	
1.1	Develop & Negotiate Work Plan				$ -				$ -	
1.2	Site Specific Plans				$ -				$ -	
1.3	Project Initiation				$ -				$ -	
1.4	Project Management				$ -				$ -	
1.5	Quality Assurance				$ -				$ -	
2.0	**Community Involvement**				**$ 2,900.00**				**$ -**	
2.1	Public Meetings	1	$500.00	lump	$ 500.00				$ -	meeting supplies
2.2	Fact Sheets				$ -				$ -	
2.3	Public Notices	12	$200.00	each	$ 2,400.00				$ -	newpaper advertisements
2.4	Presentation Materials				$ -				$ -	
2.5	Other Community Involvement Activities				$ -				$ -	
2.6	Technical Support to Review CI Deliverables				$ -				$ -	
3.0	**Field Investigation/Data Acquisition**				**$ 2,190.00**				**$ 2,400.00**	
3.1	Oversight of PRP Activities				$ -				$ -	
3.2	Split Sampling				*$ 740.00*				$ -	
		2	$260.00	each	$ 520.00				$ -	Fedex shipping
		2	$10.00	each	$ 20.00				$ -	Sampling packing supplies
		2	$100.00	eadh	$ 200.00				$ -	H&S supplies
3.3	Stand Alone Sampling				*$ 1,450.00*	1	$2,400.00	Lump sum	$ 2,400.00	For equipment rentals
		5	$260.00	each	$ 1,300.00				$ -	Fedex shipping
		5	$10.00	each	$ 50.00				$ -	Sampling packing supplies
		1	$100.00	eadh	$ 100.00				$ -	H&S supplies
3.4	Field Investigation Summary Report				$ -				$ -	
3.5	Technical Oversight Reports				$ -				$ -	
4.0	**Sample Analysis**				**$ -**				**$ -**	
4.1	Split Sampling Analytical									
4.2	Stand Alone Sampling Analytical									
5.0	**Analytical Support and Data Validation**				**$ -**				**$ -**	
5.1	Laboratory Analysis Oversight				$ -				$ -	
5.2	Coordination with EPA Sample ManageR				$ -				$ -	
5.3	Data Management Plan				$ -				$ -	
5.4	Data Validation				$ -				$ -	
5.5	Data Validation/Usablity Summary Reports				$ -				$ -	
6.0	**Data Evaluation**				**$ -**				**$ -**	
6.1	Upload of Historical Data to SCRIBE				$ -				$ -	
6.2	Upload Newly Collected Data				$ -				$ -	
6.3	Split Sample Data Summary Comparison				$ -				$ -	
15.0	**Work Assignment Closeout**				**$ -**				**$ -**	
15.1	Work Assignment Closeout				$ -				$ -	
	Total Supplies and Equipment Rental Costs				**$ 5,090.00**				**$ 2,400.00**	

Confidential Business Information

Exhibit C: TRAVEL COSTS

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

Task No.	Description	Airfare Cost	Hotel Cost	Per Diem Cost	Rental Car Cost	Personal Car Cost	Other Car Cost	Total Cost
1.0	**Project Planning & Support**	**$0**	**$950**	**$531**	**$600**	**$0**	**$90**	**$2,171**
1.4	Project Management	$0	$950	$531	$600	$0	$90	$2,171
2.0	**Community Involvement**	**$0**	**$380**	**$236**	**$240**	**$0**	**$36**	**$892**
2.1	Public Meetings	$0	$380	$236	$240	$0	$36	$892
3.0	**Field Investigation/Data Acquisition**	**$0**	**$6,270**	**$3,894**	**$3,360**	**$0**	**$594**	**$14,118**
3.1	Oversight of PRP Activities	$0	$3,800	$2,360	$2,400	$0	$360	$8,920
3.2	Split Sampling	$0	$570	$354	$360	$0	$54	$1,338
3.4	Field Investigation Summary Report	$0	$1,900	$1,180	$600	$0	$180	$3,860
	Total Travel Costs	**$0**	**$7,600**	**$4,661**	**$4,200**	**$0**	**$720**	**$17,181**

(1) Transportation cost represents the lowest cost air fare currently available.
(2) Lodging, per diem, and mileage are in accordance with CONUS rates.
(3) Other/Car includes expenses for parking, tolls, and shuttles.
(4) See Exhibit C-1 for details.

Confidential Business Information

Exhibit C-1: Travel Cost Backup

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls
Project Manager: Gunnar

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

Task No.	Location From	Location To	Purpose	No. of Staff	Total No. of Trips	Days/ Trip	Airfare (1) Unit Cost	Airfare (1) Total Cost	Hotel (2) Unit Cost	Hotel (2) Total Cost	Per Diem (2) Unit Cost	Per Diem (2) Total Cost	Rental Car Unit Cost	Rental Car Total Cost	Personal Car (2) No of Miles	Personal Car (2) Total Cost	Other/Car Cost (3)	Total Cost
1.4	Libby Mt	Mt	Attend onsite meeting with EPA and PRP	1	4	1		$0	$95	$380	$44	$177	$60	$240		$0	$36	**$833**
1.4	Libby Mt	Helena Mt	Attend agency meeting with EPA/State	1	2	3		$0	$95	$570	$59	$354	$60	$360		$0	$54	**$1,338**
2.1	Helena	Site	CIC support	1	2	1		$0	$95	$190	$59	$118	$60	$120		$0	$18	**$446**
2.1	Helena	Site	PM attendance at public meeting	1	2	1		$0	$95	$190	$59	$118	$60	$120		$0	$18	**$446**
3.1	Libby Mt	Site	Oversight of PRP activities	1	10	4		$0	$95	$3,800	$59	$2,360	$60	$2,400		$0	$360	**$8,920**
3.2	Helena	Site	Collection of split samples	1	2	3		$0	$95	$570	$59	$354	$60	$360		$0	$54	**$1,338**
3.4	Helena	Site	Stand-alone sampling event	2	1	10		$0	$95	$1,900	$59	$1,180	$60	$600		$0	$180	**$3,860**
			Total Travel Costs					**$0**		**$7,600**		**$4,661**		**$4,200**		**$0**	**$720**	**$17,181**

(1) Transportation cost represents the lowest cost air fare currently available.

(2) Lodging, per diem, and mileage are in accordance with CONUS rates.

(3) Other/Truck is fuel for rental truck

Confidential Business Information

Exhibit D: SUBCONTRACTOR

Work Assignment No.: 359-RSBD-A882
Site Name: Columbia Falls Aluminum Plant
Project Manager: Gunnar Emilsson

Contract: EP-W-05-049
Status: Original
Date: February 22, 2017

	Description	RAC VIII Team Firms		CDM Smith		Team Sub	Team Sub	Pool Subcontractors			Total
		LOE	$	LOE	$	ODCs	Travel	Laboratory	Drillers	Pool Subcontractors	Subcontractor
1.0	**Project Planning & Support**	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
1.1	Develop & Negotiate Work Plan	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
1.2	Site Specific Plans	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
1.3	Project Initiation	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
1.4	Project Management	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
1.5	Quality Assurance	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
2.0	**Community Involvement**	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
2.1	Public Meetings	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
2.2	Fact Sheets	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
2.3	Public Notices	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
2.4	Presentation Materials	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
2.5	Other Community Involvement Activities	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
2.6	Technical Support to Review CI Deliverables	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
3.0	**Field Investigation/Data Acquisition**	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
3.1	Oversight of PRP Activities	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
3.2	Split Sampling	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
3.3	Stand Alone Sampling	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
3.4	Field Investigation Summary Report	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
3.5	Technical Oversight Reports	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
4.0	**Sample Analysis**	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$55,426**	**$0**	**$0**	**$55,426**
4.1	Split Sampling Analytical	0.0	$0	0.0	$0	$0	$0	$11,396	$0	$0	$11,396
4.2	Stand Alone Sampling Analytical	0.0	$0	0.0	$0	$0	$0	$44,030	$0	$0	$44,030
5.0	**Analytical Support and Data Validation**	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
5.1	Laboratory Analysis Oversight	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
5.2	Coordination with EPA Sample ManageR	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
5.3	Data Management Plan	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
5.4	Data Validation	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
5.5	Data Validation/Usablity Summary Reports	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
6.0	**Data Evaluation**	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
6.1	Upload of Historical Data to SCRIBE	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
6.2	Upload Newly Collected Data	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
6.3	Split Sample Data Summary Comparison	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
15.0	**Work Assignment Closeout**	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
15.1	Work Assignment Closeout	0.0	$0	0.0	$0	$0	$0	$0	$0	$0	$0
	Total Subcontractor Costs	**0.0**	**$0**	**0.0**	**$0**	**$0**	**$0**	**$55,426**	**$0**	**$0**	**$55,426**

Confidential Business Information

RAC REGION VIII - Contract No. EP-W-05-049
CDM SMITH
Work Assignment No.: 359-RSBD-A882
Work Assignment Name: Columbia Falls Aluminum Plant

CDM Federal Programs Corporation Escalation Factor and Labor Rates

START DATE: **12/20/2016**
END DATE: **1/31/2018**
DURATION 13.38 MONTHS

← **ESCALATION** →

	------FB------			------OH------			------HAND CHG------			------G&A------			LABOR			ODCs		
0.0 MOS IN 2013	39.60%	0.00%		54.20%	0.00%		4.10%	0.00%		18.30%	0.00%		3.00%	0.00%		2.00%	0.00%	
0.0 MOS IN 2014	39.80%	0.00%		54.20%	0.00%		4.10%	0.00%		18.30%	0.00%		3.00%	0.00%		2.00%	0.00%	
0.0 MOS IN 2015	39.60%	0.00%		54.20%	0.00%		4.30%	0.00%		18.30%	0.00%		3.00%	0.00%		2.00%	0.00%	
0.0 MOS IN 2016	39.00%	0.00%		54.20%	0.00%		4.30%	0.00%		18.30%	0.00%		3.00%	0.00%		2.00%	0.00%	
12.0 MOS IN 2017	39.50%	474.00%		54.20%	650.40%		4.30%	51.60%		18.30%	219.60%		3.00%	36.00%		2.00%	24.00%	
1.0 MOS IN 2018	39.70%	39.70%		54.20%	54.20%		4.30%	4.30%		18.30%	18.30%		3.00%	3.00%		2.00%	2.00%	
13.0		513.70%	39.50%		704.60%	54.20%		55.90%	4.30%		237.90%	18.30%		39.00%	3.00%		26.00%	2.00%

MILEAGE RATE **$0.54**
FEE **$8.60**

CDM FEDERAL PROGRAMS CORPORATION
LABOR RATE CALCULATION

START DATE: 12/20/2016
END DATE: 1/31/2018
MIDPOINT: 7/11/2017
LABOR QUARTER: 4/5/2015
ESCAL MONTHS: 27

LABOR ESC. FACTOR 1.0680
ODC ESC. FACTOR 1.0450

	UNESC.	ESCALATED
PROFESSIONAL 4	$66.50	$71.02
PROFESSIONAL 3	$49.71	$53.09
PROFESSIONAL 2	$37.94	$40.52
PROFESSIONAL 1	$31.50	$33.64
TECHNICAL 3	$28.66	$30.61
TECHNICAL 2	$22.86	$24.41
TECHNICAL 1	$21.41	$22.87
CLERICAL	$24.75	$26.43

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